

surgical treatment of spina bifida. In one case, in a child of fifteen months, death followed immediately upon puncture of the sac with a Pravaz syringe. In two cases he employed the method of Morton—puncture, followed by injection of iodo-glycerin 1:40. In the first patient, a girl of five months, which seemed cured, convulsions and hydrocephalus appeared at the end of two months. The other child remained cured. In two cases the author partly excised the tumor, to which the cord and nerves adhered. Both were cured, but one later developed hydrocephalus, and the other remained completely paralyzed. In a boy of seventeen years, who had an enormous tumor in the dorsal region, Tédénat excised and found a considerable hiatus at the spinous apophysis, and the dissection of the tumor was very difficult. The patient recovered.

Broca, of Paris, reported ten cases upon which he operated, seven recovered and three died from infection, two remotely and one immediately. He has not observed death from shock from the operation, and the chloroform has been well borne. The operation is immediately dangerous on account of the danger of infection. In regard to the definite results, hydrocephalus is frequently observed after apparent cure. Of seven patients cured by operation, one was subjected to another operation later, the nature of which was unknown; two became blind, and three developed hydrocephalus. One remained well at the end of a year.

In one of the hydrocephalic children, Broca drained the lateral ventricles after trephining, but the patient died in twenty-four hours. In another case, he made a puncture in the lumbar region at the seat of the cicatrix, and then compressed the cranium by diachylon bandages, without any result. After excision of the spina bifida, hydrocephalus is the rule, and in the presence of this condition the surgeon is helpless.

#### ON THE DIAGNOSIS OF RUPTURE OF THE INTESTINE.

BERNDT states (*Deutsche Zeitschrift für Chirurgie*, 39 B., 5 u. 6 Heft) that after a contusion of the abdomen the following conditions may be taken as indicative of rupture of the intestine:

1. The absence of liver-dulness (Moritz).
2. Frequent and uncontrollable vomiting.
3. The appearance of peritonitis, if lesions of the kidney, bladder, liver, and spleen can be excluded.
4. Spontaneous pain in the abdomen is not of itself of much diagnostic value.

Regarding the advisability of operating in these cases, the author says:

1. If there is unmistakable evidence of rupture of the intestine, immediate laparotomy is indicated.
2. Exploratory laparotomy after contusion of the abdomen is usually to be avoided; in uncertain cases, expectant treatment should be adopted (Moty).
3. If soon after the injury (twenty-four to thirty hours) there are signs of sepsis, operation is contraindicated. A low temperature with marked constitutional symptoms is an especially unfavorable condition.
4. Rapidity and delicacy are essential in operating for rupture of the intestine, especially if peritonitis is present. Therefore, a long abdominal

years, while cases are recorded as having good health thirteen, fourteen, and even twenty-seven years after operation.

There are various theories concerning the cause for the improvement in these cases, but they are all speculative. The subacute or chronic ascitic form of tubercular peritonitis is the most favorable variety for this treatment. The dry and fibrino-plastic cases have not done well after operation.

Upon the theory that the presence of air in the peritoneal cavity exercised a destructive effect on the anaërobic micro-organisms, Folet inflated the abdomen with air, after withdrawing the fluid, in a case of tubercular peritonitis that refused laparotomy. The patient improved, and eight months afterward was in a very satisfactory condition. Mosetig v. Moorhof employed this treatment in the case of a child four years of age, but the air was sterilized by being passed through a solution of carbolic acid. Folet objects to this procedure, and believes that the air in its normal condition is more efficient.

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#### A RARE CASE OF DIVERGENT LUXATION OF BOTH BONES OF THE FOREARM.

Divergent luxation of both bones of the forearm is of so rare an occurrence, as Bardenheuer remarks, that authentic cases are of interest to the surgeon. PETZOLDT (*Arch. für klin. Chir.*, 1894, Band 48, Heft 1) describes a case which is of great interest, since it is of an entirely new variety of this rare luxation. The case related consisted not only in a luxation of the ulna posteriorly and the radius anteriorly, but the radius was also slipped inward to the inner border of the trochlear, over the fossa supratrochlearis, near the coronoid process of the ulna. The luxation occurred in a child nine years old and poorly developed, after a fall upon the hand of about three feet; there was scarcely any swelling, and all the bony points could be made out easily.

The prognosis in these cases as regards pronation and supination is improved, as this case recovered both. In reducing these luxations the first attention should be given to reducing the radial luxation, and then the ulna, as the reduction of the radius is more difficult after the ulna has been replaced.

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#### ON THE TREATMENT OF HYDRONEPHROSIS AND PYONEPHROSIS.

CRAMER, writing on this subject, states (*Centralblatt für Chirurgie*, 1894, No. 47) that the cause of hydronephrosis is still in doubt, excepting those cases depending upon obstruction by a calculus. The author suggests the possibility of an inherited tendency to hydronephrotic moving kidney. Normally, the kidney scarcely has a pelvis, but the calices discharge their contents at the deepest portion into the ureter. If the ureter is fixed by any adhesion, and the kidney falls downward and forward toward the middle line, the mouth of the ureter does not represent the deepest portion of the pelvis, but a little above. In this way the collection of urine in the kidney begins, and the accumulation and discharge alternate according to the position of the kidney. If the malposition continues, a kind of valve-mechanism is formed at the mouth of the ureter.

In regard to therapy, the remedy is to restore the mouth of the ureter to

the lowest part of the pelvis. Nephrectomy has been recommended, but it seems unjustifiable to sacrifice such an important organ, and nephrotomy is therefore more suitable.

Two cases are reported in which the kidney was reached posteriorly through Bardenheuer's flap incision, the ureter divided and transplanted in a slit made in the lowest portion of the hydronephrosis sac, which was opened and packed. It is not possible to prove that the function of the kidney has been restored in each case.

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#### THE CONTAGIOUSNESS OF CANCER.

At the eighth session of the *Congrès Français de Chirurgie*, during the discussion of the "Etiology and Pathogenesis of Cancer," GUELLIOT, of Reims, stated that the belief in a cancerous diathesis has prevented a more general acceptance of the infectious nature of cancer, which, beginning as a local disease, affects the economy secondarily. The experiences of Hanau and Moreau prove that cancer is inoculable in animals of the same species. Experimental hetero-inoculation being established, the spontaneous hetero-inoculation is possible, and remains for the clinic to prove. The rational proofs of the exterior origin of cancer and of the transmission of cancer are drawn from the usual seat of neoplasms, from the influence of lesions, irritation, or ulceration, and the numerous cases of accidental inoculation. The strongest evidence of this is furnished by observations in the rural districts. The unequal distribution of cancer is well known, and can be explained only by topographic, hydrographic, or other exterior causes in all the cases. On the other hand, there are veritable cancer-centres, abodes of cancer. Guelliot has collected fifteen examples, embracing fifty victims; the inference of contagiousness naturally follows. More instructive are the cases of epitheliomata occurring successively in persons accustomed to habitual cohabitation. The author has reported forty-two personal cases of this kind, which, added to those already published, give one hundred and thirteen observations; in more than forty-five of these husband and wife were affected. The interval which separates the appearance of the disease in the two persons has not exceeded two years in more than half of the cases. All these observations force upon one the idea of direct or indirect transmission of cancer, which spreads as an infectious disease. The incubation is from several months to two years, first localization, then generalization. The appreciation of this fact implies in the future the application of efficacious prophylactic measures.

During the same discussion, Mayet, of Lyons, expressed a belief in the cellular specificity. Laboratory experiments have led him to consider cancer is inoculable, not only by grafting, but also by the juice. The white rat is the most favorable animal for carrying out these studies. He has several times inoculated white rats with the juice of cancer obtained by the method of Brown-Séquard in extracting testicular extract, with positive results in one case in three; at the autopsy cancerous deposits were found in the kidneys.

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#### THE TREATMENT OF SPINA BIFIDA

In a discussion on this subject, at the recent session of the *Congrès Français de Chirurgie*, M. TÉDENAT, of Montpellier, related his experience in the

incision, rapid, systematic examination of the intestine, avoiding rough tearing or handling; if possible to avoid it, do not resect the intestine; employ simple Lambert sutures, or at most a wedge-shaped resection of the injured portion of intestine, and close with a simple running suture including the muscular and serous coats. Flushing the abdominal cavity with antiseptic liquids is to be avoided.

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#### INDICATIONS FOR THE SURGICAL TREATMENT OF CHOLELITHIASIS.

GERSUNY gives the following indications for operation in cholelithiasis (*Wiener medicinische Presse*, 1894, No. 47):

1. *Momentary danger* by bursting of the gall-bladder, obstruction of the intestine, beginning sepsis. If traces of sepsis are found, the necessity for operation becomes imperative. Such cases may be cured by expectant treatment, but the danger to life is greater than that incurred by the operation.
  2. *Frequent attacks of colic and persistent icterus*. Marked frequency of the attacks makes one apprehensive of danger to the patient. Further, the fact of permanent irritation is not to be underrated, because it may cause carcinoma. Persistent icterus results, as a rule, in the decline of the general health, so that one is obliged to operate to improve the nutrition of the patient.
  3. *Inability to work and constant pain*. Even if there were no momentary danger to demand an operation, if the suffering of the patient prevents him from doing anything, surgical interference is indicated, especially if the patient is dependent upon his own exertions.
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#### STERILIZATION OF THE HANDS WITH MARBLE-DUST.

WITKOWSKI recommends (*Therapeutische Monatshefte*, Bd. viii. p. 343) for sterilization of the hands, 1 part of common soap, 3 parts of sieved marble-dust, 4 per cent. lysol, and a little wax paste. Bacteriological experiments, after using this preparation, show that it may safely replace all other disinfecting methods, and renders the use of alcohol unnecessary.

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#### APPENDIX CALCULI.

ROCHAZ (*Revue Médicale de la Suisse Romande*, 1894, No. 12) concludes a valuable article on the above subject as follows:

1. Appendicitis is caused, in the great majority of cases, by stercoral calculi, even though they be not found at the operation.
2. Foreign bodies, proper, are very rare in appendicitis.
3. Worms are not found in the appendix during life.
4. In the normal appendix the fecal matter is found most frequently in a fluid state.
5. The calculi form in the appendix itself.
6. Usually they are not multiple.
7. Their general form is elongated, their color is generally brownish, their consistence is as frequently hard as soft.
8. On section, they commonly present a disposition to concentric layers.
9. The nucleus is, as a rule, of lighter color than the envelope; it is very rarely a foreign body.
10. The chemical composition of appendix calculi closely corresponds to that of human feces.
11. Men are more subject to appendicitis by foreign bodies than women, and the majority of cases are observed between